

## Native Human Catalase

Cat. No. NATE-0108

Lot. No. (See product label)

### Introduction

**Description** Catalase activates the decomposition of hydrogen peroxide, a reactive oxygen species, into water and oxygen. It functions as a natural antioxidant, protecting cells against oxidative damage to proteins, lipids and nucleic acids. Catalase has also been used to study the role reactive oxygen species play in gene expression and apoptosis.

**Synonyms** EC 1.11.1.6; Catalase; catalase; equilase; caperase; optidase; catalase-peroxidase; CAT; H<sub>2</sub>O<sub>2</sub>:H<sub>2</sub>O<sub>2</sub> oxidoreductase; 9001-05-2

### Product Information

**Species** Human

**Source** Human erythrocytes

**Form** buffered aqueous solution. Solution in 50 mM Tris, pH 8.0

**EC Number** EC 1.11.1.6

**CAS No.** 9001-05-2

**Molecular Weight** tetramer mol wt ~250 kDa

**Purity** > 90% (SDS-PAGE)

**Activity** > 30,000 units/mg protein

**Pathway** Amyotrophic lateral sclerosis (ALS), organism-specific biosystem; Amyotrophic lateral sclerosis (ALS), conserved biosystem; Folate Metabolism, organism-specific biosystem; FoxO family signaling, organism-specific biosystem; Glyoxylate and dicarboxylate metabolism, organism-specific biosystem; Glyoxylate and dicarboxylate metabolism, conserved biosystem; Metabolic pathways, organism-specific biosystem

**Function** NADP binding; aminoacylase activity; catalase activity; catalase activity; heme binding; metal ion binding; oxidoreductase activity, acting on peroxide as acceptor; protein homodimerization activity

**Unit Definition** One unit will decompose 1.0  $\mu$ mole of H<sub>2</sub>O<sub>2</sub> per min at pH 7.0 at 25°C, while the H<sub>2</sub>O<sub>2</sub> conc. falls from 10.3 to 9.2 mM, measured by the rate of decrease of A<sub>240</sub>.

### Storage and Shipping Information

**Storage** -20°C